

US EPA RECORDS CENTER REGION 5



466244

**FIELD OVERSIGHT SUMMARY REPORT
ACS NPL SITE
GRIFFITH, INDIANA**

November 8, 1999

BLACK & VEATCH
SPECIAL PROJECTS CORP.

101 North Wacker Drive, Suite 1100, Chicago, Illinois 60606, (312) 346-3775

U.S. EPA
American Chemical Service Inc.

BVSPC Project 46518
BVSPC File C.3
November 19, 1999

Mr. Kevin Adler
Remedial Project Manager
U.S. Environmental Protection Agency
Region V, SR-J6
77 West Jackson Boulevard
Chicago, IL 60604-3590

Subject: Field Summary Report

Dear Mr. Adler:

Enclosed is a copy of the quarterly groundwater sampling and Oxygen Reducing Compound (ORC) Study field oversight summary report for your review. Quarterly sampling took place during the week of November 8, 1999, at the American Chemical Services Superfund site in Griffith, Indiana. ORC sampling occurred on October 13 and November 4, 1999. Please call me at 312/683-7857 if you have any questions.

Sincerely,

BLACK & VEATCH SPECIAL PROJECTS CORP.



Chad Gailey
Project Geologist

ctg
Enclosures

cc: S. Mrkvicka, BVSPC w/enclosures

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USEPA/ARCS V
BVSPC Oversight Summary

Reporting Period November 8, 1999 Hours Worked: 52
Site Name/Location: ACS/Griffith, IN BVSPC Project No.: 46518.238
USEPA Work Assignment Manager: Kevin Adler, RPM
Site Manager: Steve Mrkvicka

Personnel Summary Affiliation	No. of Personnel	Responsibility
Lee Orsorz, Montgomery Watson, Addison, IL	1	Respondent's General Contractor
Dawn Dougher, Chad Smith, Alex Ellwood, Rudy Stein, Lonny Boning Montgomery-Watson, Addison, IL	5	Field Sampling Crew (for quarterly groundwater sampling)
Chad Gailey, Black & Veatch Special Projects Corp, (BVSPC)	1	USEPA Oversight Contractor

Summary of field activities:

During the week of November 8, 1999, Montgomery Watson conducted quarterly groundwater sampling at the American Chemical Services (ACS) Site. Two Montgomery Watson field sampling crews collected samples from monitoring wells within the ACS site boundary, the wetland area, the City of Griffith Landfill, and the areas that lie north, south, and east of the ACS facility. BVSPC's one-man crew conducted oversight of the field activities to ensure that proper sampling techniques were conducted. The specified operating procedure (SOP) for low flow groundwater sampling was adhered to by the sampling team. The BVSPC representative was tasked to collect split samples if the sampling technique differed from the SOP. BVSPC oversaw Montgomery Watson's sample paperwork procedures and decontamination set-up and routine.

Montgomery Watson collected 44 groundwater samples, and duplicate samples, matrix spike/matrix spike duplicate (MS/MSD) samples, and field equipment rinsate blanks. The monitoring wells sampled by Montgomery Watson are listed in the field logbook notes, which are attached to this report. Montgomery Watson used the low flow sampling technique and monitored for stability of the following groundwater parameters: pH, specific conductance,

and temperature. Groundwater turbidity was also monitored and samples were collected when turbidity was 10 nephelometric units (NTU's) or less.

Four equipment rinsate blanks were collected by Montgomery Watson to ensure that proper decontamination procedures yielded clean sampling equipment.

BVSPC noted problems with the tubing used to sample the groundwater. Numerous kinks were created installing and extracting the pump during sampling that hindered groundwater flow. Proper low flow sampling procedures were not available upon arriving on site by Montgomery Watson, nor were the proper well logs as needed for reference.

During the week of October 13 and November 4, 1999, Montgomery Watson conducted Oxygen Releasing Compound (ORC) sampling for natural attenuation in the area north of the ACS site. Montgomery Watson's field crew consisted of Rudy Stein and Chad Smith on October 13, and Rudy Stein on November 4, 1999. BVSPC conducted oversight to ensure proper field procedures were followed. The work plan presented by Montgomery Watson was adhered to by all field crew members. The piezometers sampled by Montgomery Watson are listed in the field logbook notes, which are attached to this report.

Signature: Chad Gailey

Date: November 19, 1999

(106)

Chad Salay

10/13/99

6:26 ARRIVED ON SITE, WEATHER
OVERCAST, LIGHTING, TEMP IS UPPER
60's, LIGHT BREEZE,
TODAY ACTIVITIES ORC Sampling
w/ Rudy Stein & Chad Smith
+ OVERSIGHT ON WATER TREATMENT
EXPANSION —

BENTON CONSTRUCTION IS ON SITE
FINISHING WORKING ON THE SLUDGE
TANK, PAINTING HAS NOT BEGUN
DO TO WEATHER.

PRESNT ARE THE FOLLOWING:

Jim Benton

Ricky Brinkley

Chris Frailey

SARED CONE

FRED PLAK

LEE BROSZ

Benton Con.

EMI

MATT

7:30

Rudy + Chad Smith ARE PREPARE
FOR ORC Sampling

08:07

Picture #4, FACING NORTH @
WATER TREATMENT BLDG w/ Rudy Stein &
Chad Smith PULLING A FUEL BLANK.

Chad Salay

(107)

Chad Salay

10/13/99

08:25 ARRIVED ON THE NORTH SIDE OF
the Track, LOCATED HERE ARE 4
WELLS,

08:30 Picture #5 of Rudy Stein, EMI
North @ P27, Taking Overall
water levels. DIA = 7.50

08:40 Started Pumping well @ P27

08:44 Chad Smith Checking DIA, DIA =
DTW 7050 NO DIA DOWN APPROX.

09:00 Start Sampling @ P27

09:01 Picture #6 EMI North @ P27
of Rudy Stein Filling a 1/2 QT PC
ORC Sampling

LOCATION OF ORC wells

• P27

• P26

• P28

↑ N • P25

N TO S/E

TRAIN TRACKS

AES FACILITY

09:10 FINISHED Sampling @ P27

09:12 MOBING TO P28

09:20 Picture #7 of Rudy Stein, EMI
NATURAL TAKEN BY Rudy Stein

Chad Salay

(108)

Chas. H. S.

10/13/49

- 09:25 STARTED Piling well @ PZ8
Rudy Stein Cheeky Draw Drift
862 Looks good no apparent
Draw Down
- 09:45 START Sampling, Parameter, #1, Tappide
Rudy, Cane, ARE STABLE,
Picture #8 Facing East @ PZ8
of Rudy Log @ a VOA bottom.
Rudy is Decaying Piling while
Chas Smith is taking Goniometer
measurement @ PZ8
- 10:05 STARTED Piling @ PZ5
- 10:25 Start Sampling @ PZ5
- 10:30 Picture #9 Facing South East @
PZ5 of Rudy Stein filling
a VOA Cuttie
- 10:40 Rudy Stein Decaying Piling mob
to PZ6, Chas Smith is
taking no other levels of surface
wells
- 10:45 Picture #10 Facing North @ PZ6
of Rudy Stein Take Goniometer
Elevation. To 71.
- 10:50 START Piling @ PZ6

Chas. H. S.

(109)

Chas. H. S.

10/13/49

10:00 THE DO. at PZ6 is checked
(in 8:10 p.m. the others are)

- 11:10 Start Sampling @ PZ6
Picture #11 Facing North.
11:20 @ PZ6, of Rudy Stein a
VOA bottom
- 11:25 Finished Sample, Chas Smith
and Rudy are height measure
a few well, then return to
WATER TREATMENT BLD to
Dose of Fresh WATER
- 12:30 Break for Lunch
- 13:05 Return to S.I.C.
- 13:20 Set up @ PZ1
- 13:43 Start Sampling @ PZ1
- 13:45 Picture #12 Facing North @
PZ1, of Rudy Stein a VOA
- 13:50 Decayed Pile
- 14:00 Measure DTW @ PZ3
- 14:10 PZ1 PZ1 PZ3 PZ4
PZ2 PZ2 PZ2 PZ2
ACROSS and up

Chas. H. S.

(11)

Chad Lanley

10/17/93

- H.05 Pumping well PZL3
- 4:12 Picture 13 # Facing East @ PZ-3 of Chad Smith
discovering Hor. 6a, see
horizon reference
- 4:25 Measuring Water Depth @ PZ4
DTH is 14.48
- 4:35 Start Pumping @ PZ4
- 5:00 Start Pumping @ PZ4
- 5:05 Chad Smith measure water depth
@ PZ2 14.12
- 5:35 Start Sampling @ PZ2
Held Holes clearing up
- 5:37 Pictures 14 # Facing East @ PZ2
of Rocky Pillar VCA
- 5:45 Finish Sampling @ PZ2
- 6:30 Chad Smith & Rocky Stevens are
Packing Samples
- 6:45 Talk to Jim Beaumont about
startis, Next 4-5 days they hope
to have the TANK Painted by
Tuesday 9th Foot will be Done by
Prarie Co.

Chad Lanley

(11)

Chad Lanley

10/17/93

- 6:20 ARRIVED ON SITE. Weather
is Cloudy, it's cool in the high 30's
- 6:40 LEE DRILL SERVICE ON SITE.
Insulating arrived for the
BBL insulation.
- 8:00 BENSON CONSTRUCTION ARRIVED ON SITE.
They are put off by the weather
for painting the tank that is
all ready for painting. SAND BLASTING
IS FINISHED.
- Our Side tank Blasted & Primed
in site cleaning is Blasted & Primed
Welding is 90% complete
The Other Pillar in site need
still needs to be Blasted &
Primed.
- BENSON CONSTRUCTION IS SET UP
FOR PAINTING FOR BBL INSULATION
- * BENSON CONSTRUCTION IS RUNNING INTO
PROBLEMS WITH THE COLD WEATHER
PAINTING OF THE TANK.
- BENSON CONSTRUCTION ALSO HAS TO INSTALL
THE STAINLESS STEEL PIPING.

120

6:45

Chad Darby 11/03/99

ARRIVED ON SITE, WEATHER IS
SUNNY AND 30° NO WINDY.

7:00

Rudy Stein + Lee Orszl ARRIVED
Rudy is Preping FOR ORC Samples
+ Lee is GETTING READY FOR
A DAY OF Work Doing in Electric
+ Plumbing.

* RYAN Construction POURED the
Floor in the Blk expansion
area 11/03/99, Looks O.K.

* WEDNESDAY 10 of Nov. ERECTION
OF THE Oil/WATER Separator is
Scheduled.

7:25 Picture #7 FACING WEST IN
front of the Blk. of Rudy Stein
Deconnning His Equipment FOR ORC
Sampling.

7:45 Riding to the North side of tracks,
PZ-8.

1 problem with access to the North
Side of TRACKS, THE Rail road is
Stack Billing TIES in the road way.
So we will Drive up the South Side
of the tracks AND walk across.

Chad Darby

121

Jack Darby 11/03/99
8:20 Rudy is READING what
Depth to water at PZ-7

7:48

8:45 Picture #8 Facing North
Rudy filling it VOL for ORC
Sampling.

8:55 Rudy is Deconnning Pumps for
Sampling @ PZ-6

9:05 OTW 7:72 @ PZ-6 initial water
level.

9:15 Pzr 7:78 @ PZ-6 Cheek Pump
Start Sampling @ PZ-6

Picture #9 Facing North @ PZ-6
of Rudy filling a VON for ORC.

9:30 Called in to the office
10:05 Picture #10 Facing East @ PZ-8
of Rudy filling a VON for
ORC Sampling.

10:15 Rudy is de connning the pump
and equipment.

10:20 Picture #11 Facing South @ PZ-7
of Rudy Cheek Pump Pump

10:35 Supply @ PZ-5

Chad Darby

(22)

- Pack Sampling mostly
- 11:00 Mob to WTB To Empty Purge Drilled
and set up for the next 4 wells -
- 11:40 Mob to PZ1
- 12:15 Picture #12 Facy North @ PZ1
of Kirby Pulley Fugel Block
- 12:40 Tht. Parameter & Ice Sampling -
- 13:00 Picture #13 Facy East @ PZ1
of Kirby Setting a VOA for
OCE Sampling -
- 13:30 Sampled PZ 3 for OCE
parameters
- 13:32 Picture #4 Facy East @ PZ3
of Kirby Pulley in VOA.
- 13:45 Set Picture #5, Facy SW
@ PZ4 of Kirby Setting up
Ice samples.
- 14:00 Sample PZ4 for OCE
parameters
- 14:10 Deconnecting pump & equipment for
Sampling PZ2
- 14:35 Setting up @ PZ2 -
- 14:47 Purge PZ2 -
- 15:15 Sampling PZ2 -
- 15:40 Returning to the WTB To
Pack and Clean Equipment (Pace says
done)

(23)

- Clock Scales were off
- 7:50 ARRIVED ON SITE, WEATHER IS
A CHARMING SUNNY Day Temp in the
60's light breeze headed time.
- 8:05 ARRIVED @ MW47, Rudey
& Dawn were set up to take
PARAMETER, LABELING BOTTLES
- 8:10 Rudey Checking Draw Down well
is Drawing Down Decrease
Flow RATE
- 8:15 Rudey Check Draw Down again
it has equalized out.
- 8:26 Final PARAMETERS @ MW47
Ph conc Turb Do Temp Tds ORP
5.52 11 576 6.2 16.4 0.07 248
LAST 3 parameters were within 10%
- 8:27 Picture #15 FACING N @
MW47 of Dawn & Kirby Poly
for metals, THESE ARE INDICATOR
PARAMETERS.
- SAMPLES ARE BEING STORED ON ICE
Final Readings for Draw Down
- 8:30 Rudey
Picture #16 Facy N at
MW47 of Dawn & Kirby
Pail Out Pump

(124)

Chael & Daley works

Down as Decoys Pups
& Equipment

8:34

Fan moving over to Alex & Chael
ARRIVE @ MW 45 Present

8:35

ARE Alex Chael Chael is taking
Draw Down MEASUREMENTS.

8:54

Alex is Taking PARAMETER @
a HORIZONTAL WATER Quality Pipe-
Final PARAMETERS @ MW 45.

8:56

pH con Tds DO Tm OCP Vol
6.75 0.12 20 1.4 16.7 10% full

Discarding the Horbia through
a Valve

9:00

Picture 17# Facing NE @ mws
of Alex filling a VCA, for indicator
Parameters

9:06

Finish Sampling @ MW45
Final DTH is 7.5%.
Samplers are being stored on
ice.

9:10

Picture # 18 of Area N W
@ MW 45 of Alex AND Chael
Pull out the pump.

9:20

Moving to see Paus & Rudy
MW 45

Chael & Daley

(125)

Chael & Daley

11/09/98

9:25 ARRIVED @ MW 15, Rudy
AND Draw are sampling
Put in Role #2, Beaver Film
STRIPED Has to pull it out @
Frame 19.

9:35 Picture 1 Role 2 Facing West
@ mw15 of Draw Decompressing
the water level, the secondary
well for the Gant Floss Pump.
I am looking up Micro pump
Protocol for ACS.

9:43 Moving to MW 50

9:46 ARRIVED @ MW50 w/ Rudy & Draw
this well is BEING SAMPLED FOR INDICATOR
PARAMETER. Draw & Rudy are setting up.

9:50 Rudy is taking a groundwater measurements

9:53 Picture #3 Role 2 Facing SSW
mw50 of Draw and Rudy installing
the Gant Floss pump.

10:00 29.62 DTW @ mw50

10:11 Rudy is checking Draw Draw
No Closure of Draw Draw.

WATER IS A MERRY BROWN COLOR
IN WITH mud & clay.

Chael & Daley

(126)

Chad's Log 10/27/89

- 10:37 Back Sampling from last to him
AFTER less for the Generator.
Reduce # of holes 2. Drilling NE (a)
mw 50 ft. of Diam. 5 ft
metals 60 ft. for incl. water
surroundings.
- 10:58 Final Parameters Copied from
meas.
- | | | | | | | | |
|------|----------|-----|-----|------|-----|-----|-------|
| PH | Core Tub | Ds | TDS | ORP | WTB | | |
| 7.33 | 0.22 | 640 | 1.3 | 13.2 | 1.4 | 118 | 29.66 |
- 11:03 Pump is Draining pump,
Next move to WTB to pump
OFF. Pump WATER.
- 12:10 Move to Exch. Reel to Sample
the well in the driveway,
- 12:20 Rely & Dawn Setting up O' Nuts
- 12:45 Rely & Dawn ARE trying to
measure well first measure
16.7 Next AFTER installing the
pump 12.2, Pump was activated
AND NO WATER was obtained
Pump checked out to be in working
condition.
- 13:25 Rely Call well Dry, mw 18
It is @ 1000ft. It is 15ft well

(127)

Chad's Log 10/27

- 13:30 WATER LEVEL IS measured @ 1000ft.
Placed well for the pump to be lowered
ONE foot where Screen interval
(a) 1 foot above Screen interval
The wells dry, thicker consist
be Sampled Sample Pictures Proposed
MAX 3 PICS.
- 13:52 I am going to Chad's
13:45 Rely & Dawn ARE setting up
At road Reel.
- 11:42, 13, 15 Sampled by Chad
& Alex AND 11 was dry.
- 13:55 Return to water TREAT mud
Bl with Chad & Alex to
Decay & Dispose of Pump
water.
- 14:00 Call Steve to inform him
of EVENT, well now 18 ft now 18
water dry & ask on last Picture
on Sample, because there is
A discrepancy on Pump Placement
He is FIX over in Rd.

- (128) Chael Harbor 11/10/97
- 14:20 Picture #3 Rode 2 Fwd west
in SLOPE WTB of Chael Party
Tide Blank, Leg up & enough
- 14:23 Finished w/ Field Bill By
Chael Alex.
- Alex & Chael ARE moving to
MW-23 AND MW-46
- 14:30 ARRIVED @ MW-46 water
LEVEL IS 1056 ft initially
- 15:10 Alex & Chael are FISHING the tubing
out of THE well.
- 15:30 Went to check on Dawn & Rudy
ARE Sampling MW 12 on the
NE SLOPE of SLOPE
- 14:10 I am returning to the office
MW46 was at mshmsd

~~W. J. Chael Harbor~~

- (29) Chael Harbor 11/10/97
- 7:50 ARRIVED on SITE, weather
is OVERCAST, mild, light breeze
- 7:58 ARRIVED MW 11 with Rudy
AND DAWN
- 8:00 Start Sampling MW 11
- 8:02 Picture #6 Rode 2 Fwd South
@ mwell of Rode 1 Tilling of
10A Bottles for indicated
parameters
- water level 10.70 @ MW 11
- pH Comp Turb Po Temp TDS GPP Gall Atm
6.8 26 890 1.1 13.8 047 86 1.4 10.78
- WATER is A REST COLOR, relatively
SOME FROM OXYDATION
- 8:05 Picture #7 Rode 2 Fwd S @ mwell
of Rode 1 Tilling of Pump
10:38 DTW MW 11 final
- 8:08 Dawn is Deconn'ing the pump
AND EQUIPMENT, Dawn & Rudy
ARE moving to Land F. 11.
- 8:025 Chael & Alex are returning from
MW23 on the Sampling
indicated Parameters
- 8:30 The Both temp are dropping off
Pump water

(13)
7:00
**

Called Steve Mekick & about
of MWK + MWLOC AND 2 other
well are suppose to be sampled
FOR FUEL. CAN NOT JUST
INDICATOR PARAMETERS.

STEVE SAID THE WELLS ARE SUPPOSED
TO BE SAMPLED FOR INDICATOR PARAMETERS
ACCORDING TO LETTER NOV 18.
THE LETTER BAYS OF THE SAMPLE
SCHEDULE.

9:37
9:38

Start Sampling MW 14
Picture #8 Rde2 Facing west
@ MW14, of Alex Filling A101
FOR INDICATOR PARAMETERS —
Final Parameters for MW 14 (x)
pH Coriolis Turb D.O Temp
6.82 68295 140 4.2 17.2 5.0 -2.6
Pump 111 = 105

9:50

Picture #9 Rde2 Facing west (a)
MW 14 of Alex & Chael pull out
the pump.

10:00
*

Called Charles Hutchinson @
DYNCORP to Report No Samples
ARE BEING SENT TO DAY OR FROM
YESTERDAY ON CASE # 27567

Chael, L.S.

(13)
10:05 105 to Landfill tanks
10:16 M4D TDS is 1309.2 mixed w/
Pump "

@ the Land Fill THERE IS A NECK
FENCE around the Perimeter —

10:25 Picture 10 Rde2 Facing NE (a)
MDA of Dawn Filling barrels
& Secure no Holes to the tanks.

10:35 Start Sampling @ MDA

10:36 Picture 11 Rde2 Facing NE (a)
MDA of Dawn Pumping Hill a
metals container

10:40 ARE Pump & Dawn are roping up Holes
the wells in Landfill are Not
Declarable. They are wells —
Dawn is Deconning the pump and
Equipment —

DH Coriolis Turb DO Temp TDS (x) for DRA
7.19 0.14 64 0.1 151 0.9 73.5 21.8 13.82

10:50 Picture Ropes are being tied to 1053
Peclet Rde2 to take a mixed
Concrete Sample.

Chael, L.S.

(132)

Chad & Alex 11/13/89

- 11:05 ARRIVE @ MW-29 with Alex
AND Chad Taking water
Quality parameters —
DTW 180.7 Cheering For Ira & Paul.
11:16 Final PARAMETERS @ MW-29 —
pH CONC Turb DO Temp Sol ODP vol
6.93 0.12 64 0.9 14.3 0.1 126 400us
11:20 Start Sampling MW-29 for in-lake
parameters —
Picture #12 Facing west @ MW-29
of Alex, Sylvy A. Gnefels connected
for indicator Parameters.
- 11:22 Picture #13 Facing west @ MW-29
of Chad & Alex disconnecting the
pump After finish Sampling
- 11:26 Picture #14 Facing west @ MW-29
of Chad Disconnecting the Catherter-
wires.
Even one is now, Back to
water Treatment Blk to 1 day
Program
- 12:15 Chad & Alex Mo b to MW-29
AND Pump & Reel up
To MSK by hand lift.

Chad & Alex

(133)

Chad & Alex 11/13/89

- 13:05 ARRIVED @ MSK hand lift
DTW 10.88 initial.
13:35 Start pumping well m15
344 Started Sampling.
Final Picture here —
pH CONC Turb DO Temp Sol ODP vol
6.81 0.33 320 0.6 14.2 201 -90 205
WATER CLEAR 10.30 @ M15
13:50 Picture #15 Facing West @ M15
of Reel and Pump Till the
pump out, (Reel)
13:55 Picture #16 Facing East @ M15
of Reel Disconnecting the pump.
Reel #2.
- 14:00 Chad & Alex are done Sampling MW-29
AS I ARRIVED, mob to East
of Site in the woods
- 14:15 Picture #17 Facing S in the woods
of Chad Disconnecting the pump before
pulling A field Blank.
- 14:43 Picture #18 Reel 2 Facing West
Inside WTB of Alex & Chad
Pulling back Blue Heron following NOA.

Chad & Alex

(134)

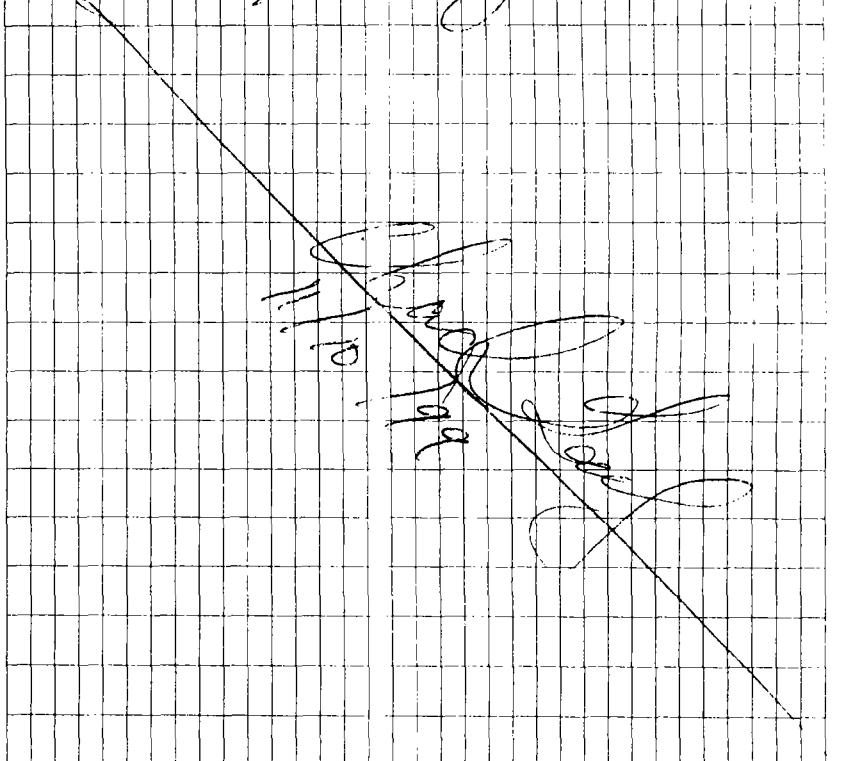
Chad & Deb 11/10/97

- 15:08 Rudy & Paul return to MW 15
to drop off Payne water
Finish @ MW 6
- Dawn & Rick are going up 15
15:10 Picture #12 Rick taking south east
@ MW-40 of Chad & Alex set up
up the pump air to mw-40
DTW 8.78 @ mw-40
- 15:40 START Sampling @ mw-40
Final parameters @ mw-40
pH Coag Turb DO Tups Sal ORVat
6.17 4.0D 82 211 18.7 0.02 18.8g
- 15:43 Rick to 12' from S @ mw-40
of Alex. Set VOF for
creativity parameters.
- 15:53 Return to MW-7
- Alex & Chad @ mw-7
in move to MW-15 to Chad
on Dewey Pump
- 16:01 Dawn & Rick are finishing up
@ MW 15 AND Recovery
pump.
- 16:10 Best @ mw 7 with Chad
Alex.

Chad & Deb

(135)

Chad & Deb 11/10/97

- 16:20 Alex's samples to Samples @ MW 7
for vol. color parameters.
- Final water sampling parameters
- | | | | | | | |
|------|------|------|-----|------|------|-------|
| pH | Cold | Turb | DO | Tups | Sal | ORVat |
| 7.24 | 66.9 | 176 | 256 | 13.7 | 0.03 | 163 |
- 16:30 Alex Decanting the pump.
- 16:40 Rick to the water treatment
BLQ to Drop off DIRTY water.
- 17:35 Leave from May
- 

(136)

Chad C. Seley 11/17/99

7:55

ARRIVED ON SITE WEATHER

upper 40's light breeze.

8:00

Dawn AND Rucy are pulling Field
Blank

8:30

LONNY BONING is taking Alex
Ellwood's placePicture #1 Role 3 FACING East
@ mw37 of Lonny & Chad nested
of the groups does well.

8:35

DTW @ mw37 8.82 in half gr.

8:53

Sample time @ mw37 -1 min
Passenger S:pH conc Turb DO Temp 8.1 6.0 Vd
6.2 655 110 182 1/3 0.8 3 2.0

DTW 8.82 Final

8:59

Finish Sampling @ mw-37

mob to see Rucy & Dawn

9:11

Picture #2 Role 3 Facing EastDawn & Rucy pulling Pump out of
mw 33

9:15

Rucy is removing the pump.

9:22

Picture #3 Role 3 sameNest tools mw33 + 30 of Rucy
removing pump.

Chad C. Seley

(137)

Chad C. Seley 11/17/99

9:25

Dawn + Rucy ARE INSTALLING
pumps Down mw30, NO ODER
DETECTED,

DTW @ mw-30 15.57 initial

9:50 Start Sampling @ mw-30 Final
parameters.pH Conc Turb DO Temp TDS ORP Vd
7.13 98 310 0.7 21 0.63 +151 2.5

Last DTW = 15.58

9:57 Rucy Think DTW 15.58 Final

10:00 Rucy is decommissioning Pump to
Sample mw-37

Moving to watch Chad Loney

10:01 ARRIVED mw-24 putting in the pump

10:10 Chad is taking initial DTW 16.50

10:35 Start Sampling @ mw-24 Final

PARAMETERS.

pH Conc Turb DO Temp SAT ORP Vd
7.00 113 HO 1.73 44.6 0.05 +88 34

Final DTW 16.51

10:36 Picture #4 Role 3 Facing SW

@ mw-24 of Chad Pulling n.
VOA ORP including parameters

Chad C. Seley

(138)

Chad & Steve 11/11/97

- 10:47 Chad & Larry MW 53 to MW 52 & 51
 10:55 Ruely & David ARE SETTING up
 on MW - 32. there is a noticeable
 ODER.
 11:10 Called Steve Mukucka to report
 on progress.
 11:35 Ridge & Fahey Return to WTP
 To Drop and Pump water
 11:40 Chad & Larry are Setting MW 2
 Picture #5 Role 3 Fahey N
 of Larry & Ridge & VOA for
 installation of pump
 Final Parameters are
 PH Coal Tub & Tap Silt CO
 $7.03 \text{ C}146 \text{ H}0 \text{ O}69 \text{ K}9 \text{ O}07 \text{ N}8$
 gallon pump 32 DTW 13.98 bar
 Startup ODE of either
 11:45 Picture #6 Role 3 Fahey N @ MW 32
 of former Decommissioning the pump.
 11:55 Picture #6 Role 3 Fahey N
 MW 53 of Larry & Chad
 installing the pump.
 12:00 DTW 14.14 m/s 1
 12:25 Picture #7 Role 3 Fahey N E @ mw 3
 of Chad called a VOA Supervisor @ VOA

Chad & Steve

(139)

Chad & Steve 11/11/97

- 12:25 Final Parameters @ mw 53
 pH Coal Tub & Tap Silt ODE Vol
~~6.87 C333 230~~
 6.49 C375 H0 1.01 D.S. O.P. -75 414 gm
 DTW 14.20 81
 12:30 Chad & Larry are decommissioning
 Equipment
 13:10 Return to WTP To drop pump
 water.
 13:25 David & Ruely ARE SETTING up
 on MW 31 & 32, DTW in 10
 tubing problems, on length
 14:20 David & Ruely are putting in
 New tubing @ MW 32
 the situation is an easy.
 14:30 Picture #8 Role 3 Fahey S 32
 mw 32 of Ruely & David
 Putting the pump & New tubing
 Down well.
 DTW @ mw 32 25.03 min
 15:00 Picture #9 Role 3 Fahey Fast
 @ MW - 32 of Ruely (take in back
 parameters fill up a VOA
 PH Coal Tub & Tap TS ODE Coal
 $7.44 \text{ P}9 \text{ 200 } \text{O}9 \text{ H}8 \text{ S}1 \text{ -14 } \text{V}0$

Chad & Steve

(40)

Chad & Daley 11/12/99

- 15:05 DTW Comass 23.1
- 15:15 Dugout is Decaying Page, -
- 15:20 Picture #10 Rof 3 Facing N.
of Daley Decaying Page.
- 15:25 Setting up on MW-31
DTW = 22.82 initial.
Purge well MW-31
- 16:20 Picture #11 Rof 3 @ MW-31
Budget Done. Graphs indicate paramet
Fining Seawater
- Final Parameter @ MW-31
pH Conc Turb DO Temp 718 ORP Gal
751 69 47 1.3 11.5 0.41 440 58.
DTW = 23.825 final
- This well MW-31 is a MS/MSD.
Dawn & Daley are going to WTB
to deep purge water.
- I'm going to check on Chad &
Lorry @ MW-48
- 16:45 Finishing MW-48 on Hervel with
Chad and Lorry.
- Return to WTB To dig Page
Leaving for dry

(41)

Chad & Daley 11/12/99

- 7:30 Arrived on site, weather mil
40s temp No Breeze Sunny
- 7:40 Arrive @ mw-49 with Daley
and Chad. There will be only
ONE crew today.
- 7:47 DTW 9.47 @ MW-49
- DTW 9:30 @ mw 49 initial
- DTW 9.47 @ mw 49 final
- pH Conc Turb DO Temp 841 ORP Vd
6.70 61.7 92 0.72 16.3 0.03 -402 50
final Parameter @ MW-49
- This well is a Pumped, graph
for indicator parameters.
- 8:02 Picture # 12 Facing N @ mw 49
of Daley take DTW @ mw 49
- 8:07 Picture #13 Rof 3 Facing N @ mw 49
of Daley & Chad pulling the pump out
- 8:30 Daley & Chad are getting
access to the RCS pump
in order to sample # well
- 8:45 Chad & Daley ARE SETTING UP ON
ATM 40
- DTW = 18.46 @ ATM 40

(H2)

- Chael Lang 11/12/83
9:00 Picture #14 Roles from East
@ ATM end of Chael Lake
DTW
9:15 Picture #5 Fawn NW @ ATM end
of Lang Rd by a VOA
P.M. Passengers @ ATM 4 P.M.
7:25 97.0 130 1.8 14.0 (S) 4 118 1.5
25.3 = DTW local
9:25 Picture #16 Fawn NW @ ATM end
of Lang & Chael pulling out
the Hwy.
9:35 Mob out of Panel & (ACS) Back to
W.B.
10:10 Picture #16 Fawn NE @ ATM end
of Chael Reel Decade
#17 Fawn NE @ ATM end
Reel pulling @ VOA. —
10:30 Picture #17 Fawn NE at
Chael S/Mont Custody Sack's
11:20 Fill and C.O. for shipping
12:35 Fresh Park brookline
to the office

11/12/83 R.D.

NOVEMBER 1999 GROUNDWATER SAMPLING

WELL PARAMETERS DATE SAMPLED/PROBLEMS/PLEASE INITIAL WHEN COMPLETE
UPPER AQUIFER

NORTH		
MW-11	Ind	11/10/99 DD/R/S
MW-12	Ind	11/9/99 RS/DD
MW-37	Ind	11/11/99 CS/LB .
MW-38	Ind	11/8/99 AE/CS
MW-39	Ind	11/8/99 AE/CS
MW-40	Ind	11/10/99 AE/CS
MW-48	Ind	11/11/99 LB/CS .
MW-49	Ind	11/12/99 CS/RS .
WEST		
M-1S	Ind	11/10/99 DD/R/S
M-4S	Ind	11/10/99 DD/R/S
MW-13	Ind	11/11 CS/LB .
MW-14	Ind	11/10/99 CS/AE
MW-46	Ind	11/9/99 CS/AE
SOUTH		
MW-06	Ind	11/10/99 DD/R/S
MW-15	Ind	11/9/99 RS/DD
MW-18	Ind	DRY DD/RS 11/9/99
MW-19	Ind	11/10/99 DD/R/S
MW-41	Ind	DRY AE/CS 11/9/99
MW-42	Ind	11/9/99 AS/CS
MW-43	Ind	11/9/99 AE/CS
MW-44	Ind	11/9/99 AE/CS
MW-45	Ind	11/9/99 AE/CS
MW-47	Ind	11/9/99 DD/R/S
MISC		
FW-D	Cyanide	11/10/99 DD/R/S

NOVEMBER 1999 GROUNDWATER SAMPLING

WELL PARAMETERS DATE SAMPLED/PROBLEMS/PLEASE INITIAL WHEN COMPLETE

LOWER AQUIFER

M-4D	Ind	11/10/99 DD/RS	
ATMW-4D	Ind	11/12/99 CS/RS	:
MW-07	Ind	11/10/99 CS/AE	:
MW-08	Ind	11/8/99 RS/DD	
MW-09R	Ind	11/10/99 CS/AE	
MW-10C	Ind	11/11/99 DD/RS	:
MW-23	Ind	11/10/99 CS/AE	
MW-24	Ind	11/11 CS/LB	:
MW-28	Ind	11/9/99 RS/DD	
MW-29	Ind	11/10/99 CS/AE	
MW-30	Ind	11/11/99 DD/RS	:
MW-31	Ind	11/11/99 CS/RS	:
MW-32	Ind	11/11/99 CS/RS	:
MW-33	Ind	11/11/99 CS/RS	:
MW-34	Ind	11/10/99 CS/RS	
MW-50	Ind	11/9/99 RS/DD	
MW-51	Ind	11/11/99 RS/DD	:
MW-52	Ind	11/11 CS/LB	:
MW-53	Ind	11/11 CS/LB	:
MW-54R	Ind	11/8/99 RS/DD	
MW-55	Ind	11/8/99 RS/DD	



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:15
Date: 11-09-99 Time: 08:27
Photographer: Chad Gailey
Description: Photo facing north at MW47 of Dawn Dougher filling a poly for metals analysis.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:16
Date: 11-09-99 Time: 08:30
Photographer: Chad Gailey
Description: Photo facing northwest at MW47 of Dawn Dougher and Rudy Stein pull out the sampling pump.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:17
Date: 11-09-99 Time: 09:00
Photographer: Chad Gailey
Description: Photo facing northeast at MW45
of Alex Ellwood filling a VOA
for indicator parameters.



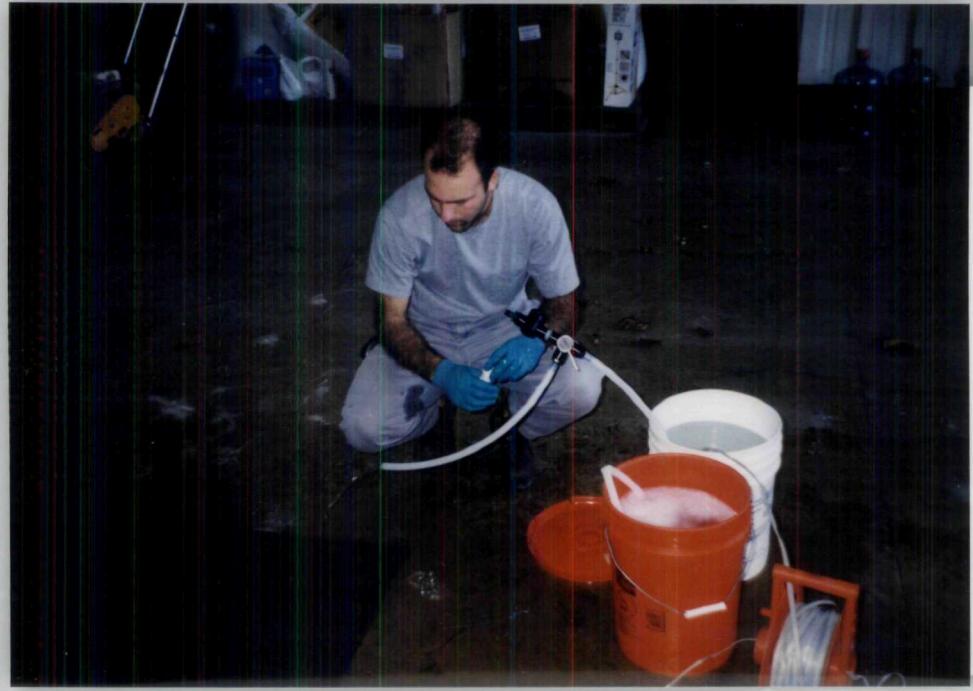
Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:1
Date: 11-09-99 Time: 09:35
Photographer: Chad Gailey
Description: Photo facing west at MW15 of
Dawn Dougher deconnning the
sampling equipment.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:3
Date: 11-09-99 Time: 09:53
Photographer: Chad Gailey
Description: Photo facing southwest at MW50
of Dawn Dougher and Rudy Stein
installing the sampling pump.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:4
Date: 11-09-99 Time: 10:37
Photographer: Chad Gailey
Description: Photo facing northeast at MW50
of Dawn Dougher fill a metals
poly for indicator parameters.



Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 2 Photo #:5

Date: 11-09-99 Time: 14:20

Photographer: Chad Gailey

Description: Photo facing west inside the water treatment Bld. of Chad Smith pulling a equipment field blank.

Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 2 Photo #:6

Date: 11-10-99 Time: 08:02

Photographer: Chad Gailey

Description: Photo facing south at MW11 of Rudy Stein filling a VOA bottle for indicator parameters.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:7
Date: 11-10-99 Time: 08:05
Photographer: Chad Gailey
Description: Photo facing south at MW11 of Dawn Dougher and Rudy Stein extraction the sampling pump.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:8
Date: 11-10-99 Time: 09:38
Photographer: Chad Gailey
Description: Photo facing west at MW14 of Alex Ellwood fill a VOA for indicator parameters.



Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 2 Photo #:9

Date: 11-10-99 Time: 09:50

Photographer: Chad Gailey

Description: Photo facing west at MW14 of
Alex Ellwood and Chad Smith
pulling out the sampling pump.

Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 2 Photo #:10

Date: 11-10-99 Time: 10:45

Photographer: Chad Gailey

Description: Photo facing northeast at MD4 of
Dawn Dougher filling out and
attaching labels.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:11
Date: 11-10-99 Time: 10:36
Photographer: Chad Gailey
Description: Photo facing northeast at MD4 of Dawn Dougher and Rudy Stein filling a metals container for indicator parameters.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:12
Date: 11-10-99 Time: 11:22
Photographer: Chad Gailey
Description: Photo facing west at MW29 of Alex Ellwood filling a metals poly for indicator parameters.



Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 2 Photo #:13

Date: 11-10-99 Time: 11:26

Photographer: Chad Gailey

Description: Photo facing west at MW29 of
Chad Smith and Alex Ellwood
disconnection the pump after
sampling.

Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 2 Photo #:14

Date: 11-10-99 Time: 11:26

Photographer: Chad Gailey

Description: Photo facing west at MW29 of
Chad Deconning the pump
controller cable.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:15
Date: 11-10-99 Time: 13:50
Photographer: Chad Gailey
Description: Photo facing west at M1S of
Rudy Stein and Dawn Dougher
pulling out the pump after
sampling..

Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:16
Date: 11-10-99 Time: 13:55
Photographer: Chad Gailey
Description: Photo facing east at M1S of Rudy
Stein deconning the pump.



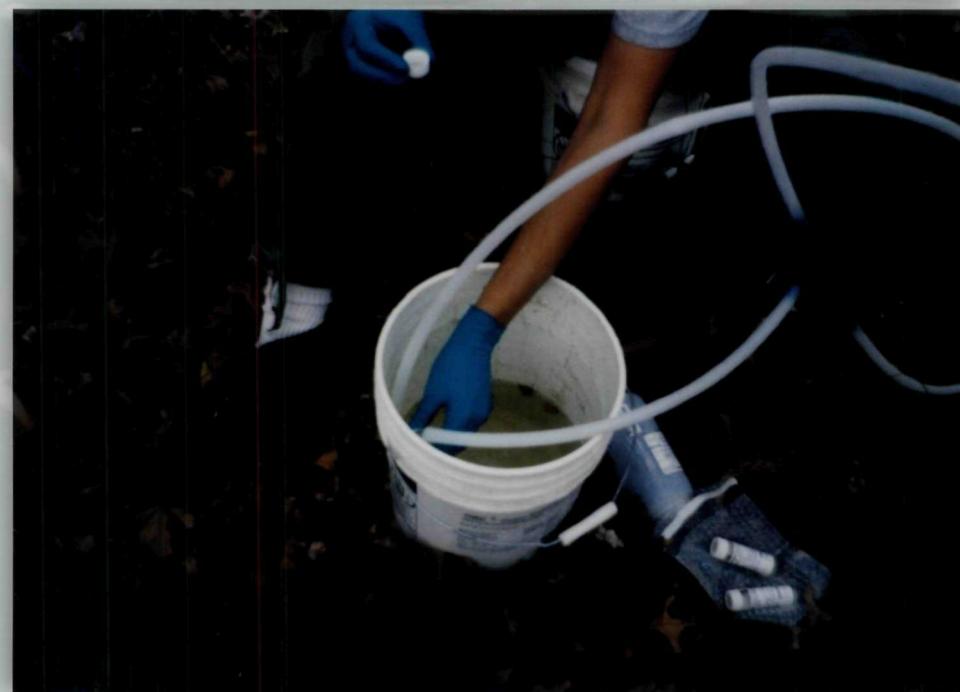
Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:17
Date: 11-10-99 Time: 14:15
Photographer: Chad Gailey
Description: Photo facing south at the water treatment Bld. of Chad Smith deconning the pump before pulling a field blank.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:18
Date: 11-10-99 Time: 14:43
Photographer: Chad Gailey
Description: Photo facing west inside water treatment Bld. of Alex Ellwood and Chad Smith pulling a field Blank.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:19
Date: 11-10-99 Time: 15:10
Photographer: Chad Gailey
Description: Photo facing southeast at MW40 of Chad Smith and Alex Ellwood setting up the pump.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 2 Photo #:20
Date: 11-10-99 Time: 15:43
Photographer: Chad Gailey
Description: Photo facing south at MW40 of Alex Ellwood filling a VOA for indicator parameters.



Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 3 Photo #:1

Date: 11-11-99 Time: 08:30

Photographer: Chad Gailey

Description: Photo facing east at MW37 of
Lonny Boning and Chad Smith
installing the pump down well.

Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 3 Photo #:2

Date: 11-11-99 Time: 09:11

Photographer: Chad Gailey

Description: Photo facing east of Dawn
Dougher and Rudy Stein pulling
the sampling pump out of the
MW33.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 3 Photo #:3
Date: 11-11-99 Time: 09:20
Photographer: Chad Gailey
Description: Photo facing north at well nest
MW33 and MW30 of Rudy Stein
deconning the pump and
equipment.

Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 3 Photo #:4
Date: 11-11-99 Time: 10:36
Photographer: Chad Gailey
Description: Photo facing southwest at MW24
of Chad Smith filling a VOA for
indicator parameter.



Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 3 Photo #:5

Date: 11-11-99 Time: 11:40

Photographer: Chad Gailey

Description: Photo facing north at MW52 of
Lonny Boning filling a VOA for
indicator parameters.

Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 3 Photo #:6

Date: 11-11-99 Time: 11:45

Photographer: Chad Gailey

Description: Photo facing north at MW52 of
Lonney Boning deconning the
pump and equipment.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 3 Photo #:7
Date: 11-11-99 Time: 12:25
Photographer: Chad Gailey
Description: Photo facing northeast at MW53
of Chad Smith collecting a VOC
sample for indicator parameters.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 3 Photo #:8
Date: 11-11-99 Time: 14:30
Photographer: Chad Gailey
Description: Photo facing southwest at MW32
of Rudy Stein and Dawn Dougher
installing the pump and new
tubing down well.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 3 Photo #:9
Date: 11-11-99 Time: 15:00
Photographer: Chad Gailey
Description: Photo facing east at MW32 of
Rudy Stein filling a VOA for
indicator parameters.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 3 Photo #:10
Date: 11-11-99 Time: 15:20
Photographer: Chad Gailey
Description: Photo facing north at MW32 of
Dawn Dougher deconning
sampling equipment.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 3 Photo #:11
Date: 11-11-99 Time: 16:20
Photographer: Chad Gailey
Description: Photo facing south at MW31 of
Rudy Stein and Dawn Dougher
filling sample bottles for indicator
parameters.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 3 Photo #:12
Date: 11-12-99 Time: 08:02
Photographer: Chad Gailey
Description: Photo facing north at MW49 of
Rudy Stein taking depth to water
measurement.



Site: American Chemical Services, Inc.

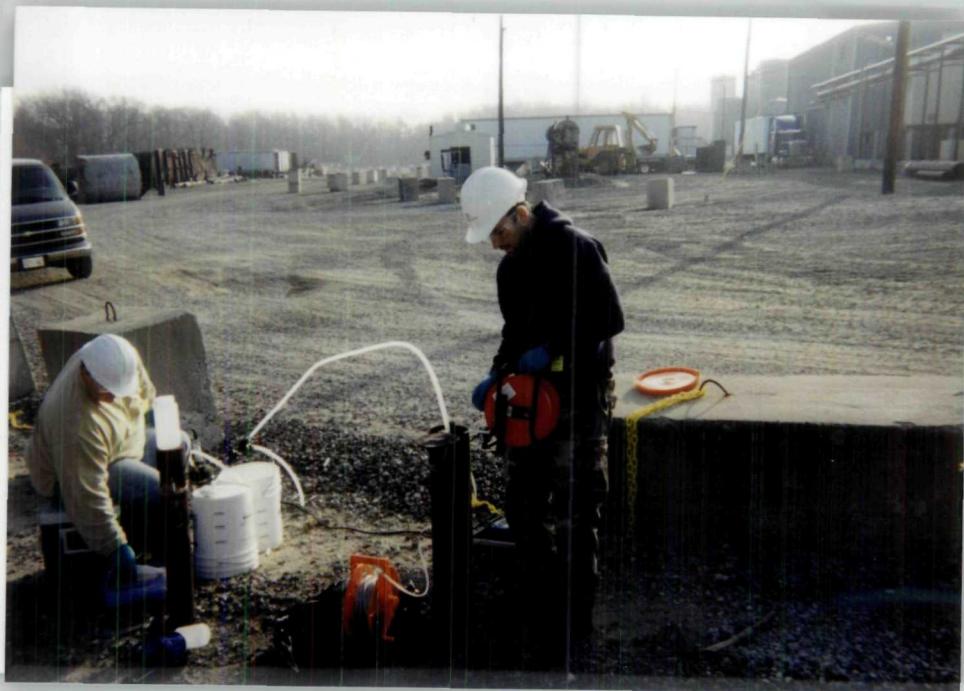
Proj. #: 46517/46518

Roll: 3 Photo #:13

Date: 11-12-99 Time: 08:07

Photographer: Chad Gailey

Description: Photo facing north at MW49 of
Rudy Stein and Chad Smith
pulling the pump out after
sampling.



Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 3 Photo #:14

Date: 11-12-99 Time: 09:00

Photographer: Chad Gailey

Description: Photo facing east at ATM4D of
Chad Smith taking initial depth to
water measurement.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 3 Photo #:15
Date: 11-12-99 Time: 09:15
Photographer: Chad Gailey
Description: Photo facing northwest at ATM4D of Rudy Stein filling a VOA for indicator parameters.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 3 Photo #:16
Date: 11-12-99 Time: 09:25
Photographer: Chad Gailey
Description: Photo facing northwest at ATM4D of Rudy Stein and Chad Smith pulling out the pump after sampling.



Site: American Chemical Services, Inc.

Proj. #: 46517/46518

Roll: 3 Photo #:17

Date: 11-12-99 Time: 10:10

Photographer: Chad Gailey

Description: Photo facing northeast at the
water treatment Bld. of Chad
Smith filling out a custody seal.

ORC SAMPLING PICTURES

October 13 and November 4, 1999



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:4
Date: 10-13-99 Time: 08:07
Photographer: Chad Gailey
Description: Photo facing north at water treatment Bld. of Rudy Stein and Chad Smith pulling a field Blank.

Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 5
Date: 10-13-99 Time: 08:30
Photographer: Chad Gailey
Description: Photo facing north at PZ7 of Rudy Stein taking initial measurement for draw down.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 6
Date: 10-13-99 Time: 09:01
Photographer: Chad Gailey
Description: Photo facing north at PZ7 of
Rudy Stein Filling a VOA for
ORC sampling.

Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 7
Date: 10-13-99 Time: 09:20
Photographer: Chad Gailey
Description: Photo facing northwest at PZ8 of
Rudy Stein taking initial
measurement for draw down.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 8
Date: 10-13-99 Time: 09:47
Photographer: Chad Gailey
Description: Photo facing east at PZ8 of Rudy
filling a VOA bottle for ORC
sampling



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 9
Date: 10-13-99 Time: 10:30
Photographer: Chad Gailey
Description: Photo facing southeast at PZ5 of
Rudy Stein filling a VOA bottle
for ORC sampling.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 10
Date: 10-13-99 Time: 10:45
Photographer: Chad Gailey
Description: Photo facing north at PZ6 of
Rudy Stein taking initial
groundwater elevation for draw
down.

Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 11
Date: 10-13-99 Time: 11:20
Photographer: Chad Gailey
Description: Photo facing north at PZ6, of
Rudy Stein fill a VOA bottle for
ORC sampling.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 12
Date: 10-13-99 Time: 13:45
Photographer: Chad Gailey
Description: Photo facing north at PZ1 of
Rudy Stein filling a VOA for
ORC sampling.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 13
Date: 10-13-99 Time: 14:12
Photographer: Chad Gailey
Description: Photo facing east at PZ3 of Chad
Smith disconnecting the Horiba
water quality meter.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:14
Date: 10-13-99 Time: 15:37
Photographer: Chad Gailey
Description: Photo facing east at PZ2 of Rudy Stein filling a VOA for ORC sampling.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:15
Date: 10-13-99 Time: 16:30
Photographer: Chad Gailey
Description: Photo facing southwest of Chad Smith and Rudy Stein packing ORC samples in coolers.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 7
Date: 11-04-99 Time: 07:45
Photographer: Chad Gailey
Description: Photo facing west at the water treatment Bld. of Rudy Stein deconning equipment for ORC sampling.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #: 8
Date: 11-04-99 Time: 08:45
Photographer: Chad Gailey
Description: Photo facing north of Rudy Stein filling a VOA at PZ7 for ORC sampling.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:9
Date: 11-04-99 Time: 09:30
Photographer: Chad Gailey
Description: Photo facing north at PZ6 of Rudy filling a Voa for ORC sampling.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:10
Date: 11-04-99 Time: 10:05
Photographer: Chad Gailey
Description: Photo facing east at PZ8 of rudy filling a VOA for ORC sampling.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:11
Date: 11-04-99 Time: 10:20
Photographer: Chad Gailey
Description: Photo facing south at PZ5 of
Rudy Stein checking draw down.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:12
Date: 11-04-99 Time: 12:15
Photographer: Chad Gailey
Description: Photo facing north at PZ1 of
Rudy Stein pulling field blank.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:13
Date: 11-04-99 Time: 13:00
Photographer: Chad Gailey
Description: Photo facing north at PZ1 of
Rudy Stein fill a VOA for ORC
sampling.



Site: American Chemical Services, Inc.
Proj. #: 46517/46518
Roll: 1 Photo #:14
Date: 11-04-99 Time: 13:32
Photographer: Chad Gailey
Description: Photo facing east at PZ3 of Rudy
filling a VOA for ORC sampling.